ABSTRACT OF THE DISCLOSURE

An apparatus is provided for designing a filter to be rendered on a programmable circuit device capable of realizing at least one filter design by wiring together at least one filter component. The apparatus includes a programmable computing device, a user interface, and a design tool. The user interface is associated with the programmable computing device. The design tool is associated with the programmable computing device and is configured for interaction with a user at the user interface. The design tool comprises computer program code embodied in the programmable computing device including at least one filter sub-circuit definition for rendering a filter design and containing information for defining at least one of multiple configurations, topologies, and parameters of the filter design via the at least one sub-circuit definition for a programmable circuit device. The user interface is configured to enable a user to select and apply input parameters to the filter design and dynamically receive display of at least one of filter response, poles required, and evaluation of sub-circuit parameters so a user can optimize input parameters for a desired filter design. A method is also provided.